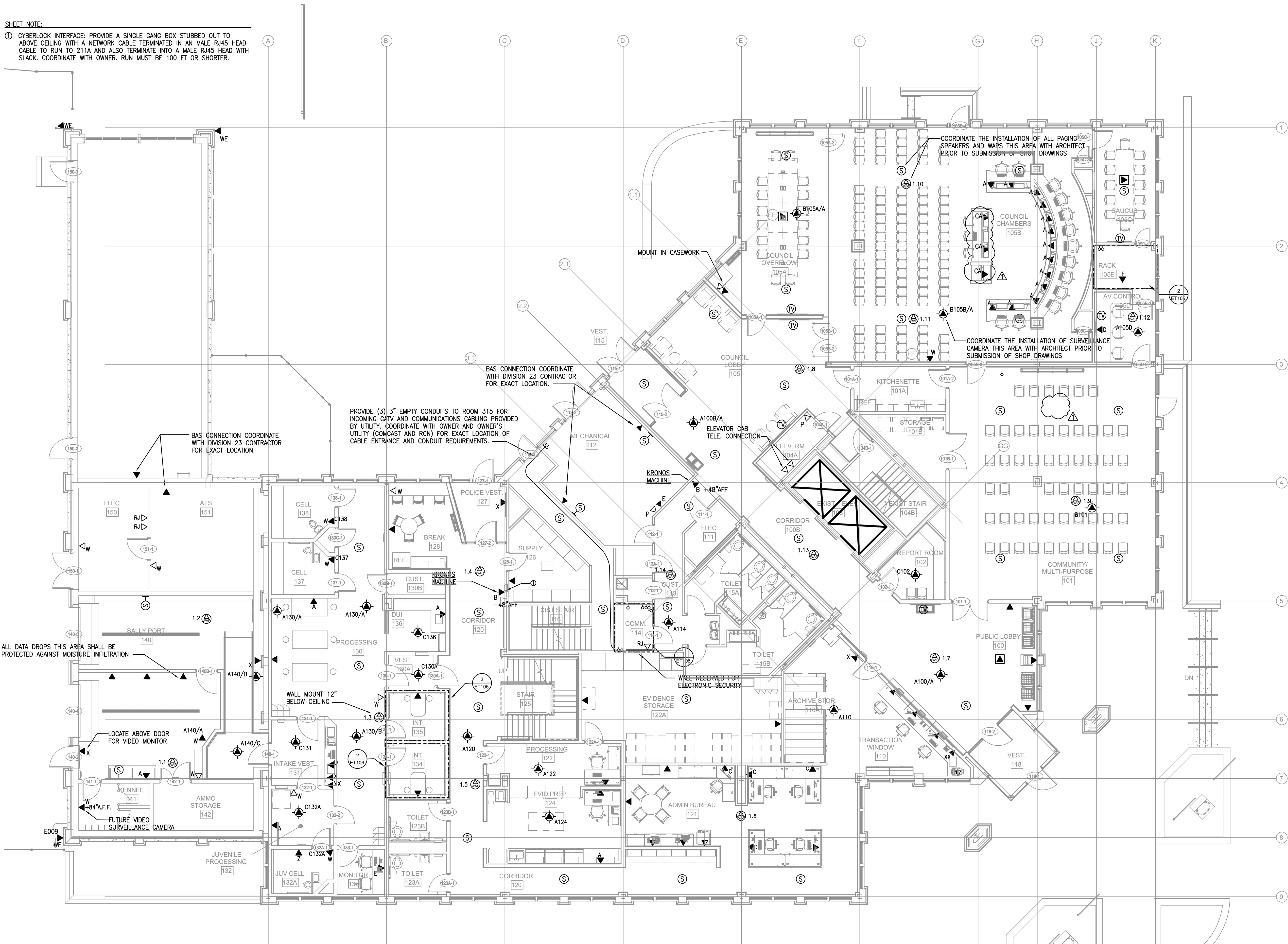



























① CYBERLOCK INTERFACE: PROVIDE A SINGLE GANG BOX STUBBED OUT TO ABOVE CEILING WITH A NETWORK CABLE TERMINATED IN AN MALE RJ45 HEAD. CABLE TO RUN TO 211A AND ALSO TERMINATE INTO A MALE RJ45 HEAD WITH SLACK. COORDINATE WITH OWNER. RUN MUST BE 100 FT OR SHORTER.



1 | FIRST FLOOR PLAN
ET101 | SCALE: 1/8" = 1'-0"

SYMBOL	CONNECTIVITY	NETWORK	CABLE	CABLE COLOR	MTC. ELEVATION DWG. ET401
	VOIP PHONE (1)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 1
	DATA DROPS (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 2
	DATA DROPS (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 3
	DATA DROP (1)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 4
	DATA DROP (1)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 5
	DATA DROP (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 6
	DATA DROPS (4)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 7
	DATA DROPS (4)	VI SYSTEM	CATEGORY 6	RED	DETAIL 8
	DATA DROPS (4)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 9
	DATA DROPS (1) TELEVISION (1)	DATA/CATV	CATEGORY 6 COAXIAL	BLUE BLACK	DETAIL 10
	ANALOG PHONE (1)	PHONE	CATEGORY 6	YELLOW	DETAIL 11
	ANTENNA DROPS (4)	RADIO	COAXIAL	BLACK	DETAIL 12
	ANALOG PHONE (1)	PHONE	CATEGORY 6	YELLOW	DETAIL 13
	CAMERA DROP (1)	VIDEO INTER	CATEGORY 6	RED	DETAIL 14
	CAMERA DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 15
	CAMERA DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 16
	MONITOR DROP (2)	SECURITY	CATEGORY 6	WHITE	DETAIL 17
	INTERCOM DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 18
	INTERCOM DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 19
	DATA DROPS (2) ANALOG PHONE (1)	DATA/TELE PHONE	CATEGORY 6 CATEGORY 6	BLUE YELLOW	DETAIL 20
	CAMERA DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 21
	DATA DROPS (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 22
	DATA DROP (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 23
	DATA DROP (2) TELEVISION (1)	DATA /CATV	CATEGORY 6 COAXIAL	BLUE BLACK	DETAIL 24
	CATV (4)	CATV	COAXIAL	BLACK	DETAIL 25

NOTE: NOT ALL SYMBOLS APPEAR ON DRAWING. SYMBOLS HAVE BEEN PROVIDED FOR REFERENCE PURPOSES ONLY. REFER TO DRAWING ET401 AND RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION

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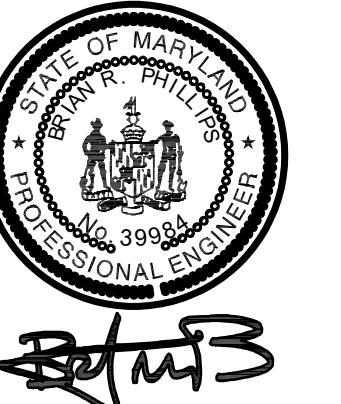
Civil:
MK Consulting Engineers
3300 Clipper Mill Road, Suite 201
Baltimore, MD 21211
p: 667 309 6193

MEP:
Burdette, Koehler, Murphy &
Associates, Inc.
6300 Blair Hill Lane, Suite 400
Baltimore, MD 21209
p: 410 323 0600

Structural Engineer
Schrader Group Architecture, LLC
 153 East King Street, Suite 211-212
 Lancaster, PA 17602
 p: 717 299 8965

Data, Telecommunications and Security
Burns Engineering, Inc.
 Two Commerce Square, 2001 Market St.
 Suite 600 Philadelphia, PA 19103
 p: 215 979 7700

Professional Seal:



PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 24476, EXPIRATION DATE 12/31/2019

Owner:
City of Gaithersburg, MD

31 South Summit Avenue
Gaithersburg, MD 20877

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16 S. SUMMIT AVE.

FOR: CITY OF GAITHERSBURG

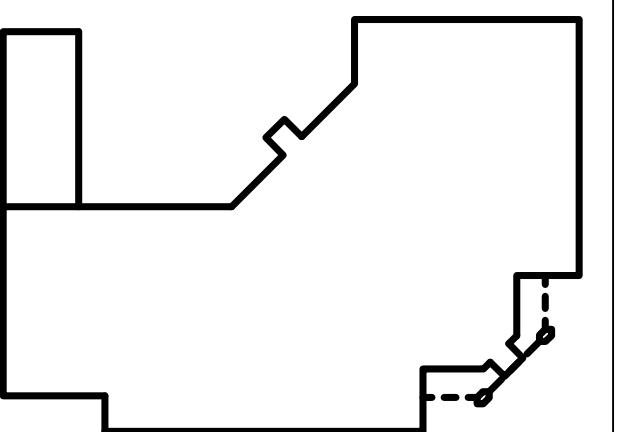
ISSUED FOR:

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DATE:	JULY 16, 2019
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SGA PROJECT NUMBER:	17-002
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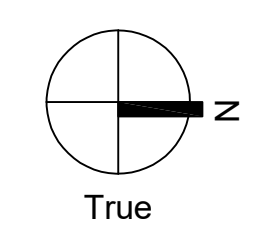
Drawn By: AJF	Checked By: AJF
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Drawing Title:

TELECOMMUNICATIONS
FIRST FLOOR
PLAN


Drawing Number:

ET101



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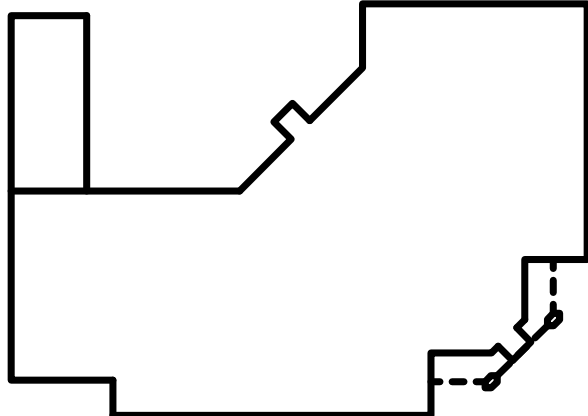


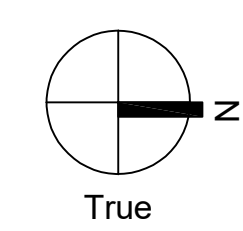
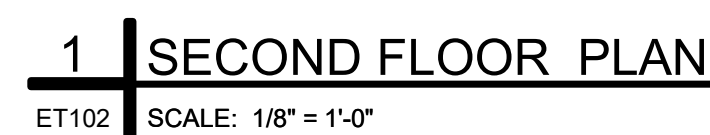
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY AN INDIVIDUAL WHO IS A LICENSED PROFESSIONAL ENGINEER, INCURRED UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. STATE EXPIRATION DATE: 12/31/2019

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[illegible]

<p>Key Plan:</p> 	
<p>Drawn By: AJF</p>	<p>Checked By: AJF</p>
<p>Drawing Title:</p> <p style="text-align: center; font-size: 24px; font-weight: bold;">TELECOMMUNICATIONS SECOND FLOOR PLAN</p>	
<p>Drawing Number:</p> <p style="text-align: center; font-size: 48px; font-weight: bold;">ET102</p>	



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







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SGA PROJECT NUMBER:	17-002
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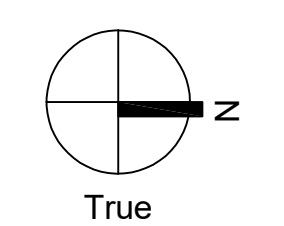
TELECOMMUNICATIONS
THIRD FLOOR
PLAN

ET103

SYMBOL	CONNECTIVITY	NETWORK	CABLE	CABLE COLOR	MTC ELEVATION DWG: ET401
	VOIP PHONE (1)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 1
	DATA DROPS (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 2
	DATA DROPS (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 3
	DATA DROP (1)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 4
	DATA DROP (1)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 5
	DATA DROP (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 6
	DATA DROPS (4)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 7
	DATA DROPS (4)	VI SYSTEM	CATEGORY 6	RED	DETAIL 8
	DATA DROPS (4)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 9
	DATA DROPS (1) TELEVISION (1)	DATA/CATV	CATEGORY 6 COAXIAL	BLUE BLACK	DETAIL 10
	ANALOG PHONE (1)	PHONE	CATEGORY 6	YELLOW	DETAIL 11
	ANTENNA DROPS (4)	RADIO	COAXIAL	BLACK	DETAIL 12
	ANALOG PHONE (1)	PHONE	CATEGORY 6	YELLOW	DETAIL 13
	CAMERA DROP (1)	VIDEO INTER	CATEGORY 6	RED	DETAIL 14
	CAMERA DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 15
	CAMERA DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 16
	MONITOR DROP (2)	SECURITY	CATEGORY 6	WHITE	DETAIL 17
	INTERCOM DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 18
	INTERCOM DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 19
	DATA DROPS (2) ANALOG PHONE (1)	DATA/TELE PHONE	CATEGORY 6 CATEGORY 6	BLUE YELLOW	DETAIL 20
	CAMERA DROP (1)	SECURITY	CATEGORY 6	WHITE	DETAIL 21
	DATA DROPS (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 22
	DATA DROP (2)	DATA/TELE	CATEGORY 6	BLUE	DETAIL 23
	DATA DROP (2) TELEVISION (1)	DATA /CATV	CATEGORY 6 COAXIAL	BLUE BLACK	DETAIL 24
	CATV (4)	CATV	COAXIAL	BLACK	DETAIL 25


NOTE: NOT ALL SYMBOLS APPEAR ON DRAWING. SYMBOLS HAVE BEEN PROVIDED FOR REFERENCE PURPOSES ONLY. REFER TO DRAWING ET401 AND RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION

1 THIRD FLOOR PLAN
ET103 SCALE: 1/8" = 1'-0"



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[illegible]

ET301

1. THE COMMUNICATIONS BACKBONE RISER DIAGRAM AS INDICATED IS DIAGRAMMATIC ONLY AND HAS BEEN PROVIDED TO DEMONSTRATE THE GENERAL BACKBONE TOPOLOGY AND CONNECTIVITY NECESSARY FOR THE SUPPORT OF ALL VOICE, DATA, SECURITY AND OWNER COMMUNICATIONS REQUIREMENTS.
2. COMMUNICATIONS BACKBONE CABLING BETWEEN THE INCOMING SERVICES AND THE MAIN COMMUNICATIONS ROOM SHALL BE ROUTED THROUGH THE FACILITY INSTALLED IN DEDICATED CONDUITS. ALL COMMUNICATIONS BACKBONE CABLING BETWEEN THE MAIN COMMUNICATIONS ROOM AND REMOTE COMMUNICATIONS ROOMS SHALL BE ROUTED THROUGH THE FACILITY VIA DEDICATED CONDUITS. ALL CABLE PENETRATIONS SHALL BE PROVIDED WITH CONDUIT PIPE CHASES AND PROPERLY FIRE STOPPED.
3. ALL BACKBONE CABLING SHALL TERMINATE ON APPROPRIATE CABLE TERMINATION PANELS INSTALLED IN COMMUNICATIONS CABINETS. THE CONTRACTOR SHALL COORDINATE ALL EQUIPMENT INSTALLATIONS, AND CABINET SPACE REQUIREMENTS WITH THE OWNER AND ALL SYSTEM INTEGRATORS. FIBER OPTIC AND COPPER CABLING SHALL BE TESTED AND CERTIFIED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. REFER TO RELATED SPECIFICATIONS SECTIONS FOR ADDITIONAL INFORMATION.
4. ALL CABLING AND EQUIPMENT INSTALLATIONS SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AND BY ALL IEEE, EIA, NEC AND MANUFACTURER'S REQUIREMENTS. ALL CABLING SHALL COMPLY WITH ALL STATE AND LOCAL ELECTRICAL CODES AND SHALL TEST FREE FROM ALL GROUNDS, SHORTS, STRAY VOLTAGES AND EMI.
5. PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NEC REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.
6. ALL PENETRATIONS OF WALLS AND/OR FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA REQUIREMENTS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRESTOPS SHALL BE PERFORMED BY AN APPLICATOR/INSTALLER QUALIFIED AND TRAINED BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION PROCEDURES.
7. WORK SHALL BE NEAT IN APPEARANCE, FREE OF ROUGH EDGES, SCRATCHES, BLEMISHES, CRACKS AND EXPOSED GAPS. ALL EQUIPMENT SHALL BE SECURED TO THE MOUNTING SURFACE, AND FASTENED WITH HARDWARE APPROVED BY THE MANUFACTURER AND CAPABLE OF SUPPORTING THE RATED LOAD. ALL CABLES INSTALLED IN CABLE TRAYS OR WITHIN ENCLOSURES SHALL BE NEATLY ROUTED AND TIE WRAPPED AT INCHES ON CENTER.
8. REFER TO SPECIFICATION SECTION 270500 AND ALL DIVISION 26, AND 28, RELATED DRAWINGS AND SPECIFICATION FOR ADDITIONAL INFORMATION RELATED TO INSTALLATION, SUBMITTALS, WARRANTY, SYSTEM INTEGRATIONS AND CLOSE-OUT REQUIREMENTS. REFER TO ALL RELATED SPECIFICATION SECTIONS AND DRAWINGS FOR ADDITIONAL INFORMATION.

- 1 IPI08 GLOBALCOM IPI000 CONTROLLER WITH ADDITIONAL 8X8 COBRANET AUDIO CHANNELS AND DIGITAL MULTI-CHANNEL MESSAGE GENERATOR
- 1 IED1112PS GLOBALCOM RACK POWER SUPPLY SYSTEM W/ONE MODULAR SUPPLY
- 1 ATLAS-IED COMPUTER KEYBOARD DRAWER ASSEMBLY W/LCD SCREEN SUPPLY
- 1 DNA2404CL GLOBALCOM 1000 SERIES 4X600 WATT DIGITAL NETWORK AUDIO POWER AMPLIFIER (120AC/70V CONSTANT VOLTAGE)
- 1 LOT SOFTWARE, LICENSES AND PROGRAMMING

6. THE CEILING SPEAKER ASSEMBLIES SHALL BE ATLAS SOUND NO. 193-8 OR APPROVED EQUAL. IT SHALL CONSIST OF AN 8-INCH X 5 OZ. MAGNET SPEAKER COMPLETE WITH 70V LINE MATCHING TRANSFORMER WITH MULTIPLE TAP SETTINGS AND ASSEMBLED TO A BAFFLE (MODEL NO. ACC1000). THE CIRCULAR BAFFLE SHALL BE 12-3/4" IN DIAMETER AND 3/8" DEEP. IT SHALL BE CONSTRUCTED OF 22 GAUGE, COLD-ROLLED STEEL (ZINCROMETAL), WITH A BAKED ON SEMI-GLOSS EPOXY FINISH, WHICH SHALL BE MAR-PROOF. COORDINATE INSTALLATION WITH ALL REFLECTED CEILING PLANS.

7. EACH SPEAKER UNIT SHALL BE SUPPLIED WITH INTEGRAL COMPRESSION DRIVER WITH DOUBLE RE-ENTRANT ACOUSTIC PATH AND EXPONENTIALLY FLARED SQUARE BELL. UNIT SHALL HAVE AN AUDIO POWER RATING OF 15 WATTS. FREQUENCY RESPONSE RANGE SHALL BE 400-14,000 HZ (NOMINAL), 500-6,000 HZ (+5DB). SOUND PRESSURE LEVEL SHALL BE 116 DB AT 15 WATTS/1METER, 106 DB AT 1 WATT/1METER. SOUND DISPERSION SHALL BE 70 DEGREES (-6 DB AT 2000 HZ OCTAVE BAND).

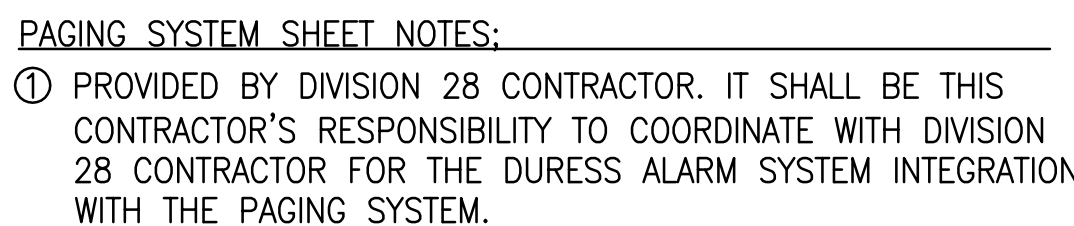
8. ALL CEILING MOUNTED CORRIDOR SPEAKER LOCATIONS SHALL BE TAPPED AT A MINIMUM OF 1 WATT. ALL CEILING MOUNTED OFFICE SPEAKERS SHALL BE TAPPED AT .5 WATTS ALL HORN TYPE AND EXTERIOR SPEAKERS SHALL BE TAPPED AT A MINIMUM OF 15 WATTS.

9. THE SYSTEM SHALL INCLUDE THE CAPABILITY FOR THE INSTANTANEOUS DISTRIBUTION OF ANNOUNCEMENTS SIMULTANEOUSLY, THROUGH THE INTEGRATION OF THE TELEPHONE SYSTEM TO ALL LOCATIONS EQUIPPED WITH SPEAKERS. ALL EMERGENCY ANNOUNCEMENTS ORIGINATING FROM ANY DURESS BUTTON SHALL HAVE PRIORITY OVER ALL REGULAR SYSTEM FUNCTIONS.

10. ALL CABLING AND EQUIPMENT INSTALLATIONS SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AND BY ALL IEEE, EIA, NEC AND ALL MANUFACTURER'S REQUIREMENTS. ALL CABLING SHALL COMPLY WITH ALL STATE AND LOCAL ELECTRICAL CODES AND SHALL TEST FREE FROM ALL GROUNDS, SHORTS, STRAY VOLTAGES AND EMI.


11. PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NEC REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.

12. ALL PENETRATIONS OF WALLS AND/OR FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA REQUIREMENTS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRESTOPS SHALL BE PERFORMED BY AN APPLICATOR/INSTALLER QUALIFIED AND TRAINED BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION PROCEDURES.



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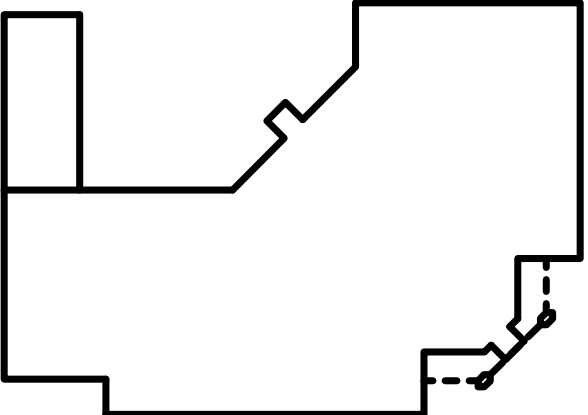


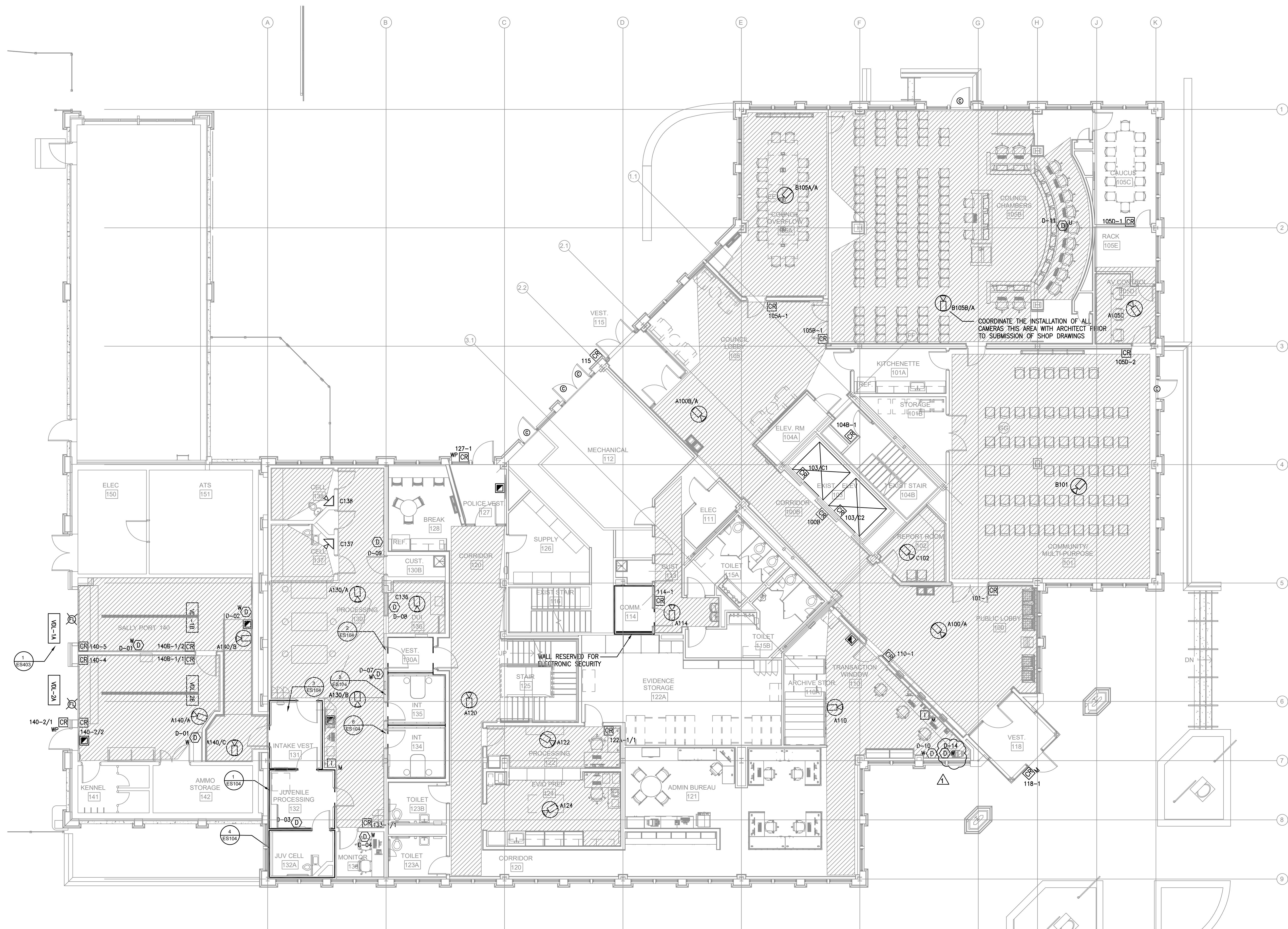
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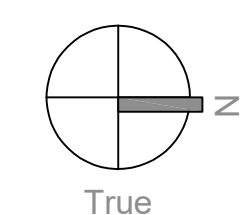
Additions and Renovations to:
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 16 S. SUMMIT AVE.
 GAITHERSBURG, MD
 FOR: CITY OF GAITHERSBURG

[illegible]

<p>Key Plan:</p> 	
<p>Drawn By: AJF</p>	<p>Checked By: AJF</p>
<p>Drawing Title:</p> <p style="text-align: center; font-size: 1.5em; margin-top: 10px;">SECURITY SYSTEMS FIRST FLOOR PLAN</p>	
<p>Drawing Number:</p> <p style="text-align: center; font-size: 3em; margin-top: 10px;">ES101</p>	




1 | FIRST FLOOR PLAN
ES101 SCALE: 1/8" = 1'-0"



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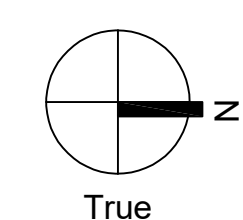
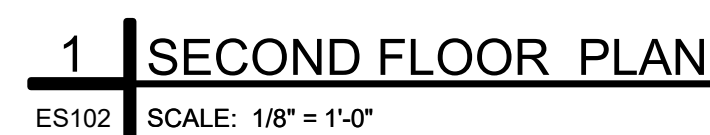
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DATE:	JULY 16, 2019
SGA PROJECT NUMBER:	17-002

Drawing Number:

ES102



1. SECURITY RISER DIAGRAM IS DIAGRAMMATIC ONLY. REFER TO FLOOR AND SITE PLANS FOR EXACT LOCATION, QUANTITY AND TYPE OF ALL SECURITY DEVICES. ALL CONTROL, ANNUNCIATION, AND MONITOR REQUIREMENTS SHALL BE PROVIDED AS REQUIRED TO PERFORM ALL FUNCTIONS AS SPECIFIED AND/OR REQUIRED BY CODE.
2. REFER TO SPECIFICATION SECTION 271300 FOR ADDITIONAL INFORMATION. ALL BACKBONE CABLEING SHALL TERMINATE ON APPROPRIATE CABLE TERMINATION PANELS INSTALLED IN COMMUNICATIONS CABINETS. THE CONTRACTOR SHALL COORDINATE ALL EQUIPMENT INSTALLATIONS, AND THE SPACE REQUIREMENTS OF THE OWNER AND ALL SYSTEM INTEGRATORS. FIBER OPTIC AND COPPER CABLEING SHALL BE TESTED AND CERTIFIED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. REFER TO RELATED SPECIFICATIONS SECTIONS FOR ADDITIONAL INFORMATION.
3. ALL CABLEING AND EQUIPMENT INSTALLATIONS SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AND BY ALL IEEE, EIA, NEC AND MANUFACTURER'S REQUIREMENTS. ALL CABLEING SHALL COMPLY WITH ALL STATE AND LOCAL ELECTRICAL CODES AND SHALL TEST FREE FROM ALL GROUNDS, SHORTS, STRAY VOLTAGES AND EMI.
4. PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NEC REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.
5. ALL PENETRATIONS OF WALLS AND/OR FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA REQUIREMENTS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRE STOPPING SHALL BE PERFORMED BY AN APPROVED INSTALLER QUALIFIED AND TRAINED BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION PROCEDURES.
6. WORK SHALL BE NEAT IN APPEARANCE, FREE OF ROUGH EDGES, SCRATCHES, BLEMISHES, CRACKS AND EXPOSED GAPS. ALL EQUIPMENT SHALL BE SECURED TO THE MOUNTING SURFACE, AND FASTENED WITH HARDWARE APPROVED BY THE MANUFACTURER AND CAPABLE OF SUPPORTING THE RATED LOAD. ALL CABLES INSTALLED IN CABLE TRAYS OR WITHIN ENCLOSURES SHALL BE NEATLY ROUTED AND THE WRAPPED AT 6 INCHES ON CENTER.
8. REFER TO ALL DIVISION 26, 27, 28, RELATED DRAWINGS AND SPECIFICATION SECTIONS RELATED TO ALL SYSTEM INSTALLATIONS AND INTEGRATIONS, SUBMITTALS, WARRANTY AND CLOSE-OUT DOCUMENTS. REFER TO ALL RELATED SPECIFICATION SECTIONS AND DRAWINGS FOR ADDITIONAL INFORMATION.

1. THE CONTRACTOR SHALL PROVIDE A TCP/IP NETWORK BASED MICROPROCESSOR CONTROLLED VIDEO INTERCOM SYSTEM WITH FULL OPERATIONAL INTEGRATION WITH THE PHYSICAL ACCESS CONTROL AND THE BUILDING VOIP TELEPHONE SYSTEM. THE CONTRACTOR SHALL INCLUDE ALL COMPONENTS, MASTER INTERCOM EXCHANGES, REMOTE INTERCOM STATIONS, CABLE, CABLE POWER, PROGRAMMING, AND ALL SYSTEM APPEARANCES AS NECESSARY TO PROVIDE A FULLY OPERATIONAL INTEGRATED SYSTEM IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
 - 1.1 ALL TCP/IP-BASED SYSTEMS CABLEING SHALL BE FURNISHED AND INSTALLED BY THE DIVISION 27 CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF RELATED SPECIFICATION SECTIONS 270500 AND 271100. REFER TO SPECIFICATION SECTION 270500 AND 271100 FOR ALL TCP/IP BASED CABLEING REQUIREMENTS.
 - 1.2 THE CONTRACTOR SHALL BE THE RESPONSIBILITY OF CONTRACTOR TO PROVIDE ALL TECHNICAL ASSISTANCE INCLUDING BUT NOT LIMITED TO THE PREPARATION OF ALL SHOP DRAWINGS, SYSTEM CONFIGURATION, EQUIPMENT COORDINATION WITH THE DIVISION 27 CONTRACTOR AND ALL AFFECTED TRADES AS REQUIRED FOR THE PROPER INSTALLATION AND INTEGRATION OF ALL SYSTEMS, DEVICES, CABLEING, CABLE TERMINATIONS AND RELATED SYSTEM INTEGRATIONS.
 - 1.3 REFER TO SPECIFICATION SECTION 280500 FOR ADDITIONAL INFORMATION ON SHOP DRAWINGS, INSTALLATION, WARRANTY, PROGRAMMING, TESTING AND ALL RELATED PROJECT REQUIREMENTS.
2. THE VIDEO DOOR INTERCOM SYSTEM SHALL BE A TCP/IP/ POE NETWORK-BASED COMMUNICATIONS AND SECURITY SYSTEM PLATFORM. AT THE MINIMUM THE SYSTEM SHALL INCLUDE THE FOLLOWING FUNCTIONS: VIDEO ENTRY SECURITY, INTERNAL COMMUNICATION, EMERGENCY STATIONS, AND PAGING.
3. ALL MASTER STATIONS SHALL BE ABLE TO UNLOCK DOORS REMOTELY ON A NETWORK, ASSIST ONSITE VISITORS FROM AN OFF SITE LOCATION, BROADCAST EMERGENCY ANNOUNCEMENTS, INTEGRATE WITH THE BUILDING'S VOIP TELEPHONE SYSTEM USING SIP BASED PROTOCOL AND COMMUNICATE USING A POE NETWORK.
4. THE SYSTEM SHALL BE BASED ON THE AI-PHONE IX SYSTEM PLATFORM. APPROVED EQUAL WILL BE ALLOWED. AT THE MINIMUM THE SYSTEM SHALL CONSIST OF THE FOLLOWING FEATURE AND/OR FUNCTIONS:
 - 4.1 POWER SOURCE: POWER OVER ETHERNET (802.3AF) ALL MASTER AND REMOTE STATIONS.
 - 4.2 NETWORK INTERFACE: 10 BASE-T / 100 BASE-TX ETHERNET (RJ-45).
 - 4.3 NETWORK PROTOCOLS: IPV4, IPV6, TCP, UDP, SIP, HTTP, HTTPS, MJPEG, RTSP, RTP, RTCP, IGMP, MDL, SMTP, DHCP, NTP, DNS.
 - 4.4 COMMUNICATION: PUSH-TALK (SMPX).
 - 4.5 CAMERA: IP7/ TCP 1/4 INCH (6.35 MM) CMOS.
 - 4.6 VIEW AREA: 2 FEET 2 INCHES (660 MM) VERTICAL X 3 FEET 1 INCH (940 MM) HORIZONTAL AT 20 INCHES (508 MM).
 - 4.7 VIDEO STREAM: ONVIF PROFILE S.
 - 4.8 DOOR RELEASE: PROGRAMMABLE FORM C DRY CONTACT, 24V AC/ DC, 500MA (USE RY-24L FOR LARGER CONTACT RATING, WHICH REQUIRES 24V DC POWER SUPPLY) OR USE RY-IP44 WITH 4 MULTIPURPOSE RELAYS.
 - 4.9 CABLE TYPE: CATEGORY-6.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING SYSTEM COMPONENTS:
 6. MASTER STATION SHALL BE TCP/IP ADDRESSABLE VIDEO STATION, WITH 3-1/2" TOUCH LCD SCREEN, 6 PROGRAMMABLE DOOR RELEASE BUTTONS WITH A MINIMUM 500 STATION ADDRESS BOOK CAPACITY. THE STATION SHALL BE AI-PHONE MODEL IX-MV.
 7. REMOTE INTERCOM STATION SHALL BE TCP/IP ADDRESSABLE VIDEO STATION, WITH FIXED COLOR CAMERA, PUSH TO TALK BUTTON, WEATHER RESISTANT SPEAKER, THE REMOTE STATION SHALL BE WEATHER RESISTANT STAINLESS STEEL FACEPLATE AND FLUSH MOUNTED ON PEDESTALS. THE STATION SHALL BE AI-PHONE MODEL IX-DF.
 8. ALL CABLE TERMINATIONS AND EQUIPMENT INSTALLATIONS SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AND BY ALL IEEE, EIA, NEC AND MANUFACTURER'S REQUIREMENTS. ALL CABLES SHALL COMPLY WITH ALL STATE AND LOCAL ELECTRICAL CODES AND SHALL TEST FREE FROM ALL GROUNDS, SHORTS, STRAY VOLTAGES AND EMI.
 9. PROVIDE ALL EQUIPMENT CLEARANCES IN ACCORDANCE WITH NEC REQUIREMENTS. ARRANGE EQUIPMENT TO FACILITATE UNRESTRICTED ACCESS FOR MAINTENANCE AND SERVICE AROUND ALL EQUIPMENT, COMPONENTS AND/OR CABLE TERMINATIONS.
 10. ALL PENETRATIONS OF WALLS AND/OR FLOORS SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE ASTM AND NFPA REQUIREMENTS. REFER TO RELATED SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION. INSTALLATION OF FIRESTOPS SHALL BE PERFORMED BY AN APPLICATOR/INSTALLER QUALIFIED AND TRAINED BY THE MANUFACTURER. INSTALLATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILED INSTALLATION PROCEDURES.
 11. WORK SHALL BE NEAT IN APPEARANCE, FREE OF ROUGH EDGES, SCRATCHES, BLEMISHES, CRACKS AND EXPOSED GAPS. ALL EQUIPMENT SHALL BE SECURED TO THE MOUNTING SURFACE, AND FASTENED WITH HARDWARE APPROVED BY THE MANUFACTURER AND CAPABLE OF SUPPORTING THE RATED LOAD. ALL CABLES INSTALLED IN CABLE TRAYS OR WITHIN ENCLOSURES SHALL BE NEATLY ROUTED AND STRAPPED TO THE TRAY OR ENCLOSURE. ALL CABLES SHALL BE MINIMUM 6 INCHES ON CENTER.
 12. REFER TO ALL DIVISION 26, 27, 28, RELATED DRAWINGS AND SPECIFICATION SECTIONS FOR ADDITIONAL INFORMATION ON SYSTEM INSTALLATIONS AND INTEGRATIONS, SUBMITTALS, WARRANTY AND CLOSE-OUT REQUIREMENTS.

